



PATENT APPLICATION
Navy Case No. 82,591

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Keller et al.

Serial No.:10/006,385

Filed: December 10, 2001

For: METAL NANOPARTICLE THERMOSET AND CARBON COMPOSITIONS FROM
MIXTURES OF METALLOCENE-AROMATIC-ACETYLENE COMPOUNDS

Examiner: Not Yet Assigned

Group Art Unit: 1754

February 28, 2002

Honorable Assistant Commissioner of Patents
Washington, D.C. 20231

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APR 11 2002
TC 1700

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INFORMATION DISCLOSURE STATEMENT

Dear Sir:

Pursuant to the provisions of 37 C.F.R. § 1.97 et seq., the applicants submit the most relevant documents of which applicants are currently aware. The documents are identified on the attached form PTO-1449 and/or in an accompanying Statement of Relevance.

To the extent available, copies of the patents and or other documents cited are enclosed. If available and to the extent needed, English translations of pertinent portions of any non-English language references are also enclosed.

By this submission, applicants do not assert that a search of the prior art was made or that the patents and documents cited constitute all relevant prior art. The references cited constitute only that information now known to the applicants which, in the reasonable opinion of the applicants, is relevant to the claimed invention. The Examiner is requested to consider these documents, and to indicate such in any forthcoming office action.

Kindly charge any additional fees due, or credit any overpayment of fees, to Deposit Account

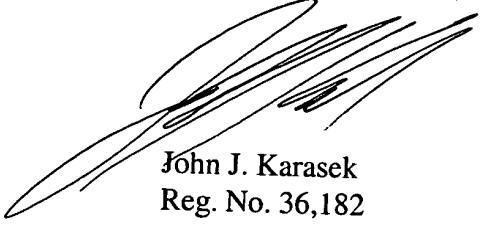
03/11/2002 NICHOLAS 00000121 500281 10006385

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100.00 CN

No. 50-0281.

Respectfully submitted,



John J. Karasek
Reg. No. 36,182

Prepared by:
Jane Barrow
Reg. No. 34,217
Phone No. 202-404-1551



1700\$

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FEE TRANSMITTAL for FY 2002

Patent fees are subject to annual revision.

TOTAL AMOUNT OF PAYMENT	(\$ 180)
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Complete if Known	
Application Number	10/006,385
Filing Date	December 12, 2001
First Named Inventor	Keller
Examiner Name	not yet assigned
Group Art Unit	1754
Attorney Docket No.	79,838

METHOD OF PAYMENT

1. The Commissioner is hereby authorized to charge indicated fees and credit any overpayments to

Deposit Account Number 50-0281

Deposit Account Name Naval Research Laboratory

Charge Any Additional Fee Required Under 37 CFR 1.16 and 1.17

Applicant claims small entity status. See 37 CFR 1.27

2. Payment Enclosed:

Check Credit card Money Order Other

FEE CALCULATION

1. BASIC FILING FEE

Large Entity Small Entity

Fee Fee Fee Fee Description
Code (\$) Code (\$)

Fee Paid

101 740 201 370 Utility filing fee

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106 330 206 165 Design filing fee

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107 510 207 255 Plant filing fee

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108 740 208 370 Reissue filing fee

[]

114 160 214 80 Provisional filing fee

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SUBTOTAL(1) (\$ 0)

2. EXTRA CLAIM FEES

Total Claims	Extra Claims	Fee from below	Fee Paid
Independent Claims	-20- = [] X [] = []		
Multiple Dependent	- 3" = [] X [] = []		0

Large Entity Small Entity

Fee Fee Fee Fee Description
Code (\$) Code (\$)

103 18 203 9 Claims in excess of 20

[]

102 84 202 42 Independent claims in excess of 3 -

[]

104 280 204 140 Multiple dependent claim, if not paid

[]

109 84 209 42 ** Reissue independent claims over original patent

[]

110 18 210 9 Reissue claims in excess of 20 and over original patent

[]

SUBTOTAL (2) (\$ 0)

* or number previously paid, if greater. For Reissues, see above

3. ADDITIONAL FEES

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
105 130 205 65	Surcharge - late filing fee or oath		
127 50 227 25	Surcharge - late provisional filing fee or cover sheet		
139 130 139 130	Non-English specification		
147 2,520 147 2,520	For filing a request for ex parte reexamination		
112 920* 112 920*	Requesting publication of SIR prior to Examiner action		
113 1,840* 113 1,840*	Requesting publication of SIR after Examiner action		
115 110 215 55	Extension for reply within first month		
116 400 216 200	Extension for reply within second month		
117 920 217 460	Extension for reply within third month		
118 1,440 218 720	Extension for reply within fourth month		
128 1,960 228 980	Extension for reply within fifth month		
119 320 219 160	Notice of Appeal		
120 320 220 160	Filing a brief in support of an appeal		
121 280 221 140	Request for oral hearing		
138 1,510 138 1,510	Petition to institute a public use proceeding		
140 110 240 55	Petition to revive - unavoidable		
141 1,280 241 640	Petition to revive - unintentional		
142 1,280 242 640	Utility issue fee (or reissue)		
143 460 243 230	Design issue fee		
144 620 244 310	Plant issue fee		
122 130 122 130	Petitions to the Commissioner		
123 50 123 50	Processing fee under 37 CFR 1.17(c)		
126 180 126 180	Submission of Information Disclosure Stmt		180
581 40 581 40	Recording each patent assignment per property (times number of properties)		
146 740 246 370	Filing a submission after final rejection (37 CFR § 1.129(a))		
149 740 249 370	For each additional invention to be examined (37 CFR § 1.129(b))		
179 740 279 370	Request for Continued Examination (RCE)		
169 900 169 900	Request for expedited examination of a design application		
Other fee (specify) _____			
*Reduced by Basic Filing Fee Paid			SUBTOTAL (3) (\$ 180)

SUBMITTED BY

Name (Print/Type)	John J. Karasek	Registration No. (Attorney/Agent)	36,182	Telephone	202-404-1552	Complete if applicable
Signature				Date		

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>				Application Number	10/006,385
				Filing Date	December 10, 2001
				First Named Inventor	Keller
				Group Art Unit	1754
				Examiner Name	not yet assigned
Sheet	1	of	2	Attorney Docket Number	82,591

Examiner Signature		Date Considered	
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

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Sheet 2

of 3

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Compl t if Known	
Application Number	10/006,385
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First Named Inventor	Keller
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Examiner Name	not yet assigned
Attorney Docket Number	82,591

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		Jacoby, Data Storage: New Materials Push the Limits, June 12, 2000, C&EN, pp 37-45	
		Koltypin et al, Encapsulation of Nickel Nanoparticles in Carbon Obtained by the Sonochemical Decomposition of Ni(C ₈ H ₁₂) ₂ , Chem. Mater., 1999, Vol 11, pp. 1331-135	
		Morales et al, Surface and Internal Spin Canting in γ-Fe ₂ O ₃ Nanoparticles, Chem Mater., 1999, Vol 11, pp. 3058-3064	
		Jia et al, Some Acetylene and Hydride Chemistry of Group 8 Metal Complexes with Cyclopentadienyls and their Analogous Ligands, J. Organometallic Chemistry, 565, (1998), PP. 37-48	
		Kruis et al, Synthesis of Nanoparticles in the Gas Phase for Electronic, Optical and Magnetic Applications - A Review, J. Aerosol Sci. Vol 29, No. 5/6, pp. 511-535, 1998	
		Carpenter et al, Organometallic Compounds as Single-source Precursors to Nanocomposite Materials: An Overview, J. Organometallic Chemistry 557 (1998) pp. 121-130	
		Manziek et al, Functionalized Emulsion and Suspension Polymer Particles: Nanoreactors for the Synthesis of Inorganic Materials, Chem. Mater., 1998, Vol 10, pp 3101-3108	
		Fink et al, Ethynylferrocene Compounds of 1,3,5-Tribromobenzene, Organometallics, 1997, Vol 16, pp. 2646-2650	
		Moumen et al, New Synthesis of Cobalt Ferrite Particles in the Range 2-5nm: Comparison of the Magnetic Properties of the Nanosized Particles in Dispersed Fluid or in Powder Form, Chem. Mater., 1996, Vol 8, pp. 1128-1134	
		Hsung et al, Synthesis and Characterization of Unsymmetric Ferrocene-Terminated Phenylethynyl Oligomers Cp ₂ Fe-[C=C-C ₆ H ₄] _n -X(X=SH, SMe, SOMe, and SO ₂ Me) Organometallics, 1995, Vol 14, pop. 4808-4815	<i>RECEIVED</i> MAR 12 2002 TC 1700
		Moller et al, Inorganic Nanoclusters in Organic Glasses-Novel Materials for Electro-optical Applications, Synthetic Metals, 41-43 (1991) pp 1159-1162	

Examiner Signature	Date Considered
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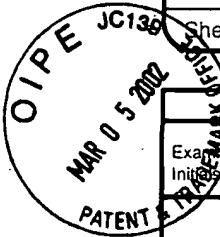
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT			
<i>(use as many sheets as necessary)</i>			
Sheet	3	of	3
Complete if Known			
Application Number		10/006,385	
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Examiner Name			
Attorney Docket Number		82,591	



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